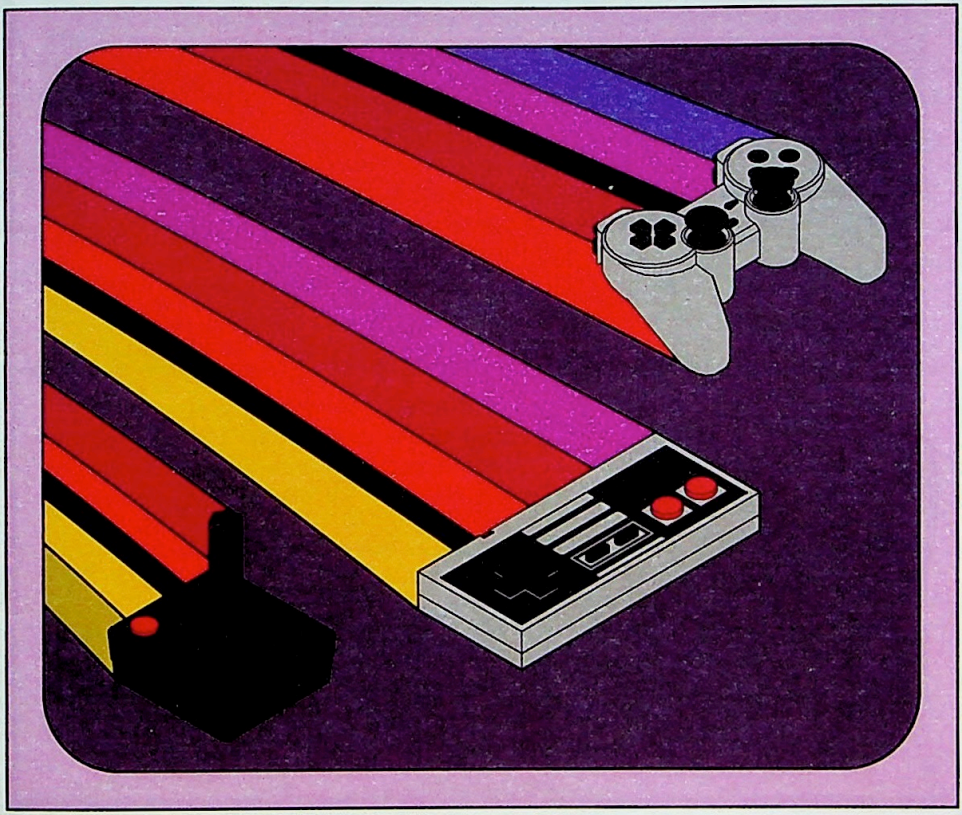
64b

# 64 BITS OR LESS

## RETRO GAMING FESTIVAL AND SWAP MEET

SPONSORED BY
PORTLAND RETRO GAMING EXPO



### A RETRO GAMING EVENT LIKE NO OTHER!

We seek to bring the community together to make friends, celebrate classic gaming, and relive our childhoods in a nostalgia-fueled environment.

Play all your favorite classic console games on the original hardware. Explore and experience our huge collection of classic consoles and computers in unique game stations. Check out our interactive video game art installations.

## 64 BITS OR LESS

## A RETRO GAMING EVENT LIKE NO OTHER

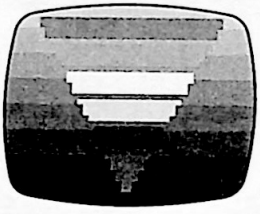
This weekend we celebrate the spirit of childhood video gaming by sitting around the TV with friends and sharing a game controller while we solve puzzles and destroy epic bosses, life after life. We have dozens of unique systems with hundreds of games to play. Starting with a variety of Pong units and the Atari 2600 from 1977 and running through the Nintendo 64 and PlayStation of 1994. We also have a variety of home computers from the 80s and 90s in the Computer Lab.

We are excited to be sponsored by the Portland Retro Gaming Expo. Check out the high score contest to win a weekend pass to this year's Expo.

A variety of concessions, soft drinks, snacks, and merchandise are available for purchase at the check-in table.

This year we have added a Swap Meet to our lineup. A number of local vendors will be selling vintage collectibles: video games, action figures, clothing, movies, music, and more!

## 64 BITS IS A SAFE SPACE



All are welcome, and all must be respectful of each other and the venue. Please contact a staff member if you have any questions or concerns, event staff will be wearing badges for easy identification.

**This is a drug and alcohol free event.** The Benton County Events Center is a smoke/vape/tobacco free facility.

## LIFE OR LEVEL

Growing up, we followed the "Life or Level" rule when we played games with out friends. The rule is simple: pass the controller to the next player in line every time you lose a life or beat a level. This way players of all skill levels get a turn.

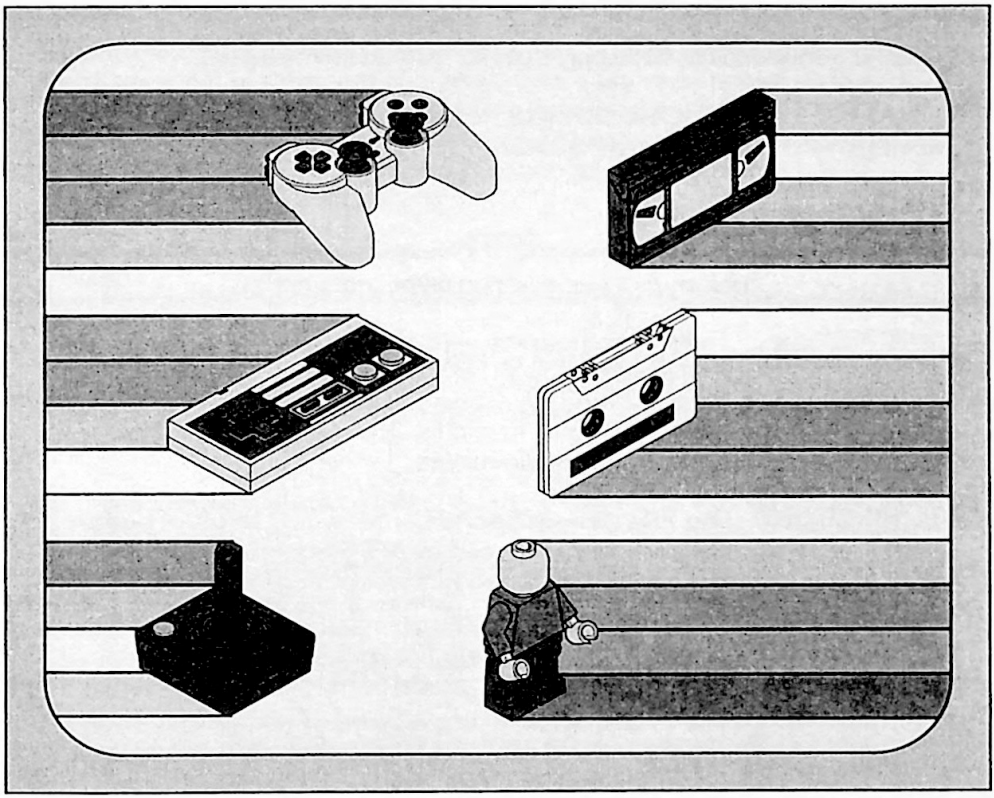
We encourage you to play in this spirit this weekend. Be aware of people who might be waiting for a turn. If you've been occupying a system for a while, move on to check out another system, and make sure everyone gets a chance to play.

## SWAP MEET

## SATURDAY AND SUNDAY, 11AM TO 5PM

We are happy to be joined this year by several local vendors who are selling a variety of vintage collectibles.

Browse their tables to Vintage Video Games, Toys/Action Figures, Records/Cassettes, Vintage T-Shirts/Clothing, VHS/DVD, and more!



## VENDORS

Vendors will include:

- The Immortal John Hancock
- Kontraband Retro Games
- PreAtomic Records
- Bricks & Joysticks
- TSA Vintage
- BVRetroLife

and more!

Each table is run by a separate vendor, so please check out with the seller before moving on to the next table.

## HOME PONG

Pong is considered the first commercially successful video game and was the first game developed by Atari. The prototype unit was a stand-up arcade cabinet designed by Al Alcorn in 1972.

In 1975, Atari developed Home Pong. This system condensed the transistor-transistor-logic of the arcade version into a single-chip integrated circuit. It connected to a consumer's home television set. This was a quick success. Many manufacturers quickly entered the video game market marked by releasing pong clones.

PONG

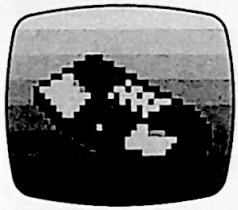
## TIPS

Select a game and/or variation, then hit reset to start playing.

**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

Enjoy!

## TELE-GAMES SPORTS CENTER



The first home pong units developed by Atari were sold exclusively through Sears department stores under the brand name Tele-Games. Sears would continue to use the Tele-Games brand for licensed systems from a number of manufacturers.

The Tele-Games Sports Center was a series of pong-like consoles produced by APF Electronics. We have 1977's Hockey-Tennis model which also features handball and a single player practice mode.

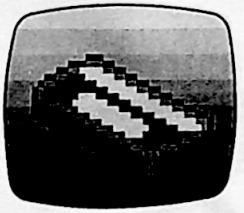
TELE-GAMES

## RADIOSHACK TV SCOREBOARD

The TV Scoreboard was a series of pong-like consoles produced by Tandy and sold exclusively through their RadioShack stores. The system had a unique form factor, with the entire system built into the handheld controllers. Several variants of this system were released between 1976 and the early 1980s. This version includes Tennis, Hockey, Squash, and Practice.

RadioShack

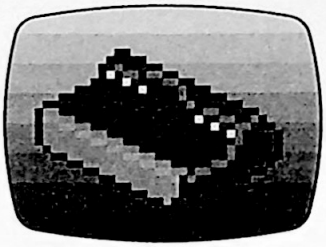
## COLECO TELSTAR RANGER



Coleco Telstar was a line of pong-like systems launched in 1976. The Ranger, released in 1977, set itself apart with the inclusion of a light-gun modeled after a Colt 45. In addition to four traditional pong-like games, the Ranger featured Skeet and Target Shooting using the light gun.

COLECO

## ATARI 2600



Released September 11, 1977 at a cost of $199, the Atari 2600 was the first big name in home gaming. Originally labeled as the Atari Video Computer System, the name Atari 2600 was retroactively applied after the release of the Atari 5200 in 1982.

The 2600 was the first widely available home gaming system to utilize a microprocessor-based architecture and games stored on swappable ROM cartridges. In many ways, this was the system that brought gaming into the home.

Though technically limited compared to the arcade systems and home computers of the same era, the 2600 was a big commercial success. It remained among the most successful game consoles into the 1980's, holding off competition from Coleco and Mattel until the video game crash of 1983. The 2600 was finally discontinued on January 1, 1992, having sold over 30 million units.

## TIPS

1. **The Console should be OFF when inserting or removing a Cartridge.**

2. Hold the Cartridge so the name on the end reads right side up and CAREFULLY insert it into the slot in the center of the Console switch panel. Be sure the Cartridge is firmly seated, but do NOT TRY TO FORCE IT.

3. Slide Power Switch to ON.

4. Many games require you to depress the Reset Switch to start playing.

5. For many games, if you depress the Game Select Switch before the Reset Switch, a number will appear on the upper left corner. This will access variations of the game.

6. Read the front label on the Cartridge to see whether a Joystick, or Paddle Controller is needed. If there's no indication it is likely a Joystick Controller. Be sure to CAREFULLY insert Controller plug in same orientation as the one you are unplugging.

7. When removing a Cartridge, check to see that the Power Switch on the Console is OFF, then pull it straight out of the Console.

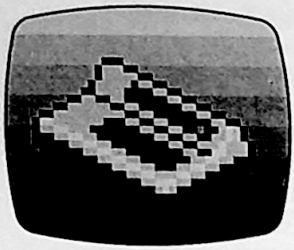
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Defender, Space Invaders, Breakout, Joust, Pitfall, Ms. Pac-Man, Berzerk, Megamania. Plug in 2 sets of Paddle Controllers to try 4 player Warlords!

Enjoy!

ATARI 2600

# MAGNAVOX ODYSSEY 2



Released in North America in February 1979, the Odyssey 2 had moderate success competing against the Atari 2600, though it fell behind after the release of the Intellivision.

The Odyssey 2 was a followup to Magnavox's successful line of pong-like consoles in the early 70s. Compared to its competitors at the time, the Odyssey 2 had fairly limited graphics, but it had some unique features, including a full keyboard and a speech synthesis add-on.

## TIPS

1. **The Console should be OFF when inserting or removing a Cartridge.**
2. Hold the Cartridge so that the label side is facing you.
3. Insert the Cartridge CAREFULLY in the slot on the top of the console. Push it in firmly but do NOT TRY TO FORCE IT.
4. Press the Power Switch on the Console to the ON position (DOWN).
5. SELECT SCREEN will appear on the TV screen. Press a number on the Keyboard located on the Console. Different numbers will generate variations of the game.
6. When you remove a Cartridge, always make sure that the Power switch on the Console is in the OFF position.

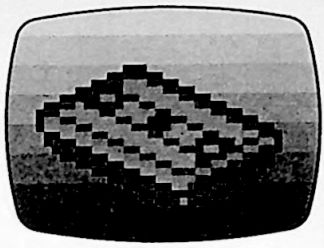
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** K.C. Munchkin!, K.C.'s Crazy Chase!, Pickaxe Pete!, Blockout/Breakdown!, Invaders from Hyper Space!

Enjoy!

ODYSSEY²

## MATTEL INTELLIVISION



Mattel began development of the Intellivision in 1977, the same year Atari released the 2600. The Intellivision eventually got a full North American release in 1980.

With superior graphics and sound, the Intellivision was the first system to pose a serious threat to the market leading 2600. It had a few years of success but was ultimately another victim of the video game crash of 1983. Mattel sold off its video game assets. The new owner continued to publish a small number of games until the system was discontinued in 1990.

## TIPS

1. **The Console should be OFF when inserting or removing a Cartridge.**
2. Hold the Cartridge so that the name can be read right side up.
3. Insert the Cartridge into the slot on the right side of the Console. Insert firmly until it is engaged but do NOT TRY TO FORCE IT. If you lift the right side of the Console, there is a place to grip while inserting.
4. Slide the ON-OFF Switch to ON.
5. With each Cartridge there are 2 plastic cards which are Overlays. The Overlay can be pushed into a slot at the top of the Hand Controller's Keypad so as to fit exactly over the keys. These determine the meaning of any keys you may use in each particular game.
6. To remove the Cartridge, simply pull it straight out of the slot. The Console should be OFF when switching Cartridges.

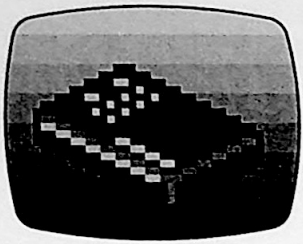
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Lock 'N' Chase, Burger Time, Demon Attack, Astro Smash, Night Stalker, Atlantis.

Enjoy!

MATTEL ELECTRONICS
INTELLIVISION

## COLECOVISION



Released August 1982 following the Telstar series, the ColecoVision was the first home console to offer arcade graphics, at least at a reasonable price. The system had a strong lineup of games, including the first home version of Nintendo's Donkey Kong as a pack-in game.

Sadly, having produced over 145 titles between 1982 and 1984, and with the console wars just beginning, Coleco withdrew from the video game market in 1985.

## TIPS

1. **The Console should be OFF when inserting or removing a Cartridge.**
2. Carefully insert the Cartridge with label facing you into the slot on the right side of the Console unit. Insert the Cartridge until it is fully seated but do NOT TRY TO FORCE IT.
3. Slide the Power Switch on the Console to "ON".
4. The Controller Keypad Buttons 1-8 allow you to select a Game Option before beginning to play. Pressing * after a game allows you to replay the same game option. Pressing # allows you to return to the Game Option screen.
5. Some Cartridges come with an Overlay, which slides into the Controller to cover the Keypad. Check the back of the Cartridge to see if they are available.
6. When removing the Cartridge, simply put it straight up and out of the slot. Remember to turn the Power Switch "OFF" first.

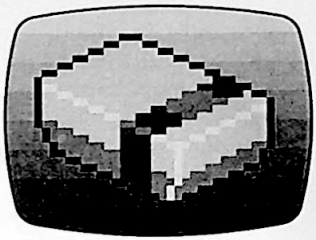
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Gorf, Ladybug, Popeye, Frogger, Q*Bert, Donkey Kong.

Enjoy.

COLECO VISION

## NINTENDO ENTERTAINMENT SYSTEM



The Nintendo Entertainment System is an 8-Bit console released in 1985 as the North American version 1983's Famicom. The NES and Famicom would sell over 60 million units worldwide.

The NES revitalized the US console market following the video game crash of 1983. To overcome America's skepticism of video games, Nintendo sought to distance the system from previous game consoles. Terms like console and cartridge were replaced with Control Deck and Game Pak, and the console was redesigned with a unique front-loading "toaster" design to mimic modern VCRs.

The NES won us all over and is still considered one of the greatest consoles ever made.

## TIPS

1. **The Console should be OFF when inserting or removing a Cartridge.**
2. Open the Chamber Lid on the Console. Insert a Cartridge into the Chamber (Label Facing up) and push it in all the way but do NOT TRY TO FORCE IT.
3. PRESS DOWN on the Cartridge until it locks into place and close the Chamber Lid.
4. Turn ON the Power Switch of the NES Console. If the "reinsert" indicator light on the front of the Console is flashing, try pressing the reset button. If light continues to flash, turn OFF the Console and reinsert the Cartridge.
5. Use the SELECT button on Controller 1 to select the game, then press START.

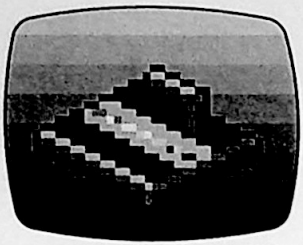
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Super Mario Bros. 1 & 3, Tetris, Contra, Mega Man 2, Excitebike, Kid Icarus, Punch-Out!, Gradius.

Enjoy!

Nintendo®
ENTERTAINMENT
SYSTEM

## ATARI 7800 PROSYSTEM



Originally slated for a 1984 release, the Atari 7800 was delayed until 1986 following the sale of the company. The 7800 was a significant step forward from Atari's prior 2600 and 5200 models. Capable of playing games from the 2600, the 7800 was the first console to offer backwards compatibility out of the box.

Though its hardware produced graphics that far exceeded the consoles of its era, by the time it was publicly available the NES was dominating, and the 7800 failed to gain a foothold. Atari discontinued the system in 1992, along with the 2600 and the 8-bit family of computers.

## TIPS

1. **The Console should be OFF when inserting or removing a Cartridge.**
2. Hold the Cartridge so that the game title reads right side up on the end.
3. Insert the Cartridge into the slot at the center of the console. Be sure the Cartridge fits firmly but do NOT TRY TO FORCE IT.
4. Turn the Console power ON. Press any button on the left Joystick to start the game.

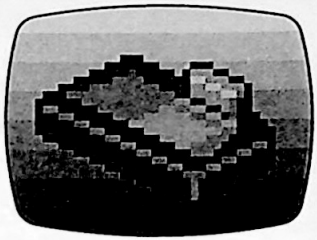
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Galaga, Centipede, Robotron 2084, Xevious, Asteroids.

Enjoy!

ATARI 7800

## SEGA MASTER SYSTEM



Originally released in 1985 as the Sega Mark III in Japan as a follow up to the SG-1000, the Master System was Sega's first big hit. It received a North American release in 1986 and would eventually sell over 12 million units worldwide.

The SMS had arguably better graphics and sound than the NES and was probably its most successful competitor. But Sega struggled to compete with Nintendo's exclusive licensing policies and larger game library, especially in North American and Japanese markets. It had greater success other markets, especially Brazil, where it controlled 80% of the video game market for a time.

The SMS held it's own at the start of the console wars, and paved the way for the well known Genesis.

## TIPS

1. **The Console should be OFF when inserting or removing a Cartridge.**
2. Insert Cartridge, label facing you, into the Cartridge slot. Press it fully into the slot but do NOT TRY TO FORCE IT.
3. Press the Power button ON.
4. To start the game, press button 1, on Controller 1. For 2 players, press button 1 on Controller 2.

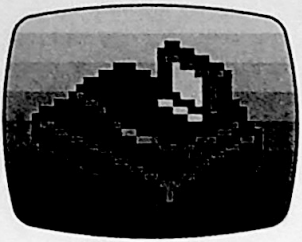
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Alex Kidd in Miracle World, Astro Warrior, Double Dragon, R-Type, The Ninja, Ghouls 'n Ghosts.

Enjoy!

SEGA
Master System

## SEGA GENESIS



The Sega Genesis was a 16-bit console released in 1989, known as the Mega Drive outside of North America. The Genesis put Sega in the limelight where they belonged and would sell 20 million units in North America.

With a two year head start over the Super Nintendo and a sizable game library, including ports of Sega's arcade titles, the Genesis saw considerable success. For a brief moment in time, Sonic and Mario were neck and neck in the console wars.

## TIPS

1. **The Console should be OFF when inserting or removing a Cartridge.**
2. Insert a Cartridge, with the label facing you, into the Cartridge Slot. Press it firmly into the Slot until the Cartridge "locks" into place, but do NOT TRY TO FORCE IT.
3. Turn the Power ON. The Power-On Indicator light should come on.
4. Press Start on the Controller to play.

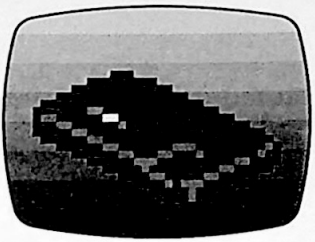
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Sonic the Hedgehog 1, & 2, Aladdin, Altered Beast, X-Men, Streets of Rage 2, Mortal Kombat II.

Enjoy!

SEGA GENESIS

## TURBOGRAFX-16



Initially released in Japan as the PC Engine in 1987, the TurboGrafx-16 would not be released in North America until 1989. It is considered the first entry in the fourth generation, or 16-bit era, of game consoles. It saw great success in Japan, outselling its main rival, Nintendo's Famicom, at release. But its delayed North American release meant it had to compete against the next generation of consoles from Nintendo and Sega, the Super NES and the Genesis. The TurboGrafx-16 never gained a foothold in the US market.

## TIPS

1. **The Console should be OFF when inserting or removing a Game Card.**

2. Hold the the Game Card with the tile side UP, and GENTLY slide the end with the metal contacts into the Console's Game Card Port until you feel a firm click, but do NOT TRY TO FORCE IT.

3. DO NOT bend the Game Card or touch the metal contacts since this could damage the game program.

4. Slide the Power Switch to the ON position. If the Game Card isn't inserted all the way, the Power Switch won't move, do NOT FORCE the slide switch.

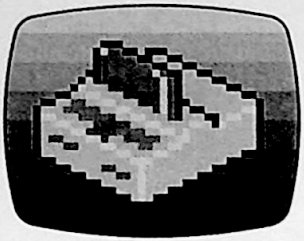
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Bonk's Adventure, Blazing Lasers, Keith Courage in Alpha Zones, Dragon Spirit, Alien Crush.

Enjoy!

TURBOGRAFX 16

## SUPER NINTENDO ENTERTAINMENT SYSTEM



The Super Nintendo was a late comer to the 16-bit generation, released for North America in 1991.

Boasting advanced graphics and sound, it eventually became the best selling console of its era. A variety of enhancement chips integrated into game cartridges kept it competitive into the next generation of consoles. Games like Donkey Kong Country kept the SNES on top long enough that Nintendo skipped over the 32-bit generation, jumping straight to the Nintendo 64.

## TIPS

1. **The Console should be OFF when inserting or removing a Game Cartridge.**
2. Load the Cartridge into the top of the Console with the label facing you. Push it down all the way but do NOT TRY TO FORCE IT.
3. Slide the Power Switch to the ON position.
4. Use the select Button on Controller #1 to select the game you want, then press the start button to begin the game.
5. Push the eject button on the console to remove the Cartridge.

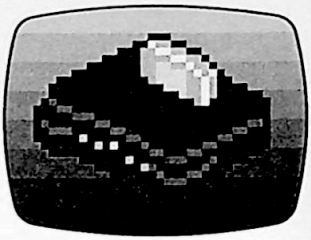
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Super Mario Kart, Donkey Kong Country, The Lion King, Killer Instinct, F-Zero, Super Street Fighter II.

Enjoy!

SUPER NINTENDO
ENTERTAINMENT SYSTEM

## NINTENDO 64



The Nintendo 64 was released in North America in September 1996 and would sell over 32 million units worldwide.

In the early 90s Nintendo led the industry with the NES. Although the follow-up console, the Super NES was successful, competition from old rival Sega and the recently scorned Sony caused Nintendo to skip the 32-bit generation altogether. Behold, the N64. The 64 remains one of the most recognized video game systems in history and its games still have impact on the gaming industry today. We have two N64's to play this weekend, including a selection of multiplayer games on the big screen.

## TIPS

1. **The Console should be OFF when inserting or removing a Game Cartridge.**

2. Load the Cartridge into the top of the Console with Label facing you. Push it down all the way, but do NOT TRY TO FORCE IT.

3. When turning the Console ON, do NOT move the Control Stick from its Neutral position on the Controller. Doing so will Cause the Control Stick to operate incorrectly.

4. Slide the Power Switch to the ON position.

5. Press Start on Controller number one to start playing the game.

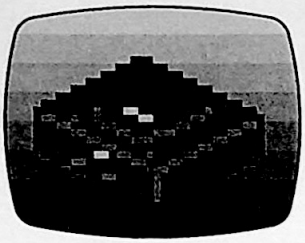
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Pilot Wings 64, Wave Race, Star Fox 64, Micro Machines 64 Turbo, 1080 Snowboarding, Diddy Kong Racing.

Enjoy!

NINTENDO 64

## SEGA SATURN



Released May 11, 1995, the Saturn was Sega's primary entry in the 32-bit generation. Internal competition with Sega's 32X attachment for the Genesis lead to a rough start, but the Saturn initially held its own against its primary rival, the Sony PlayStation. The Saturn was successful in Japan, but failed to sell in large numbers in the US. After the debut of the Nintendo 64 in 1996, the Saturn rapidly lost market share and was discontinued in 1998.

Having sold 9.26 million units, the Saturn is considered a commercial failure. The Saturn marked the beginning of the end for Sega but is still remembered for several well-regarded games, including the Virtua Fighter series.

## TIPS

1. **To Switch Game Discs, Press the RESET Button on the Console while holding down Button A on the Player 1 Controller.**

2. Press the OPEN Button on the Console to open the CD door. Before you remove the Game Disc, Check that the CD Control Screen appears, which means the Game Disc has stopped spinning and is safe to remove from the Console. Never touch the disc while it is spinning. Otherwise, you may hurt yourself or damage the Game Disc or Console.

3. Remove the disc by pressing the central spindle gently and picking up the disc, holding it by the edge. Place the disc carefully back in its proper case and select a new game.

4. When inserting a Game Disc, hold the disc label side up and push the disc GENTLY but firmly until it sits snugly on the central spindle. Shut the CD door and allow a moment for the Console to read the Game Disc.

5. Press Start on the Player 1 Controller to begin playing.

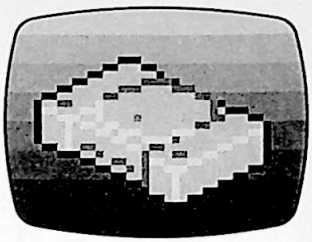
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Virtua Fighter 2, Daytona USA

Enjoy!

SEGA SATURN

## SONY PLAYSTATION



Launched in September 1995, the PlayStation was Sony's first standalone game console.

Long ago Nintendo approached Sony to develop a CD-ROM add-on for the Super NES, tentatively titled the 'Play Station' or 'SNES-CD'. A contract was signed, and work began. At the 1991 Consumer Electronics Show, Sony announced their partnership with Nintendo. The next morning, Nintendo revealed that they were now allied with Philips instead.

Sony took their games and went home. They adapted the hardware they developed for Nintendo into a standalone console, and the rest is history. Ten years after its launch the PlayStation became the first console to sell 100 million units.

## TIPS

1. To Switch Game Discs, Press the OPEN or EJECT Button on the Console and make sure that the disc completely stops. Never touch the disc while it is spinning. Otherwise, you may hurt yourself or damage the Game Disc or Console.

2. Remove the disc by pressing the central spindle gently and picking up the disc, holding it by the edge. Place the disc carefully back in its proper case and select a new game.

3. When inserting a Game Disc, hold the disc label side up and push the disc GENTLY but firmly until it sits snugly on the central spindle. Shut the CD door and allow a moment for the Console to read the Game Disc.

4. The Dualshock Controller can be switched between Digital mode and Analog mode by pressing the Analog mode button on the controller. Check the back of the Game case for an indication of which to use.

5. Press the Start or X Buttons on the player 1 Controller to begin playing.

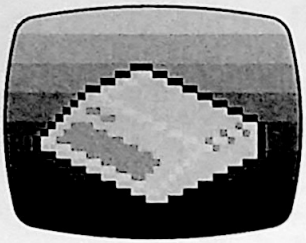
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Tony Hawk's Pro Skater 2, Gran Turismo 2, Tekken 2, Crash Bandicoot.

Enjoy!

PlayStation

## APPLE II E



The Apple II was the first of three microcomputers (along with TRS-80 and Commodore PET 2001) released in 1977 that are credited with launching the home computer industry. Steve Wozniak's clever, cost-saving circuitry design, combined with Steve Job's vision for a futuristic, molded-plastic case made the Apple II one of the first computers to be successfully marketed to consumers as a home-appliance, rather than a business-machine or a hobbyist-kit.

The third iteration in the Apple II series, the Apple //e, was launched in 1983 and remains Apple's longest-lived computer, having sold for nearly 11 years. For many of us, this was the first computer we used, playing Oregon Trail in the school computer lab.

## TIPS

The games we have for the Apple //e are loaded from floppy disks. These disks will automatically load when the computer is rebooted. Then you can simply follow the onscreen instructions.

1. Always wait for the green Activity Light next to the disk slot to be off before inserting or removing a disk.

2. Insert the Game Disk in the left Floppy Drive Slot and push the door down.

3. If the system is on, press [Open-Apple] + [Control] + [Reset] on the keyboard to reboot the system. If the system is off, flip the power switch on the back left corner of the computer to ON.

4. To end a game, try these options, in order of preference: Follow onscreen instructions; Press [ESC]; Press [Control] + [C]; Press [Control] + [Reset] to return to the command prompt; Press [Open-Apple] + [Control] + [Reset] to force a reboot. As a last resort, turn off the power.

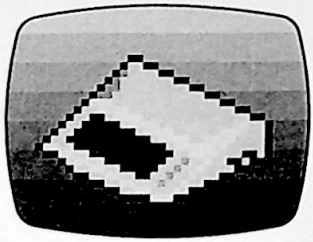
5. Disks for the Apple II may be double sided, but the drives are not. To read Side 2 of one of these "Flippy Disks", insert it label side down.

**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Defender, Galaxian, Oregon Trail, Pac-Man

Enjoy!

## ATARI 800



The Atari 8-bit home computer series was launched in 1979 with the 800 and 400 models.

Even as the Atari 2600 game console was in development, Atari engineers were already dreaming of a full-fledged computer. The Atari 8-bit family was intended to eliminate some of the limitations of the 2600 while competing against early home computers such as the Commodore PET, TRS-80, and Apple II. The systems were designed to be more user friendly and provide better gaming performance.

The Atari 8-bit computers used the same MOS-6502 processor as the 2600, along with custom graphics (ANTIC) and sound (POKEY) chips.

## TIPS

Programs for the Atari 800 can be stored in several formats, including floppy disks and cassette tapes. All of our games are on ROM cartridges.

1. Open the cartridge door by pulling the latch above the keyboard.
2. Hold the cartridge with the label facing you, and insert the it CAREFULLY into the LEFT slot.
3. Close the cartridge door. The Computer will not operate with the door open.
4. Make sure the Power Switch, on the right side of the Computer, is in the ON position, and press the [START] key on the keyboard.
5. Follow on-screen instructions to load the game, using the [OPTION], [SELECT], and [START] keys on the keyboard.
6. Use the [SYSTEM RESET] key to restart at the beginning of the Cartridge.

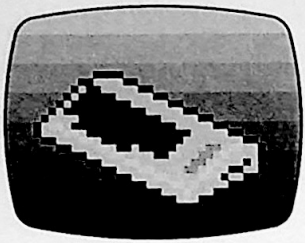
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Frogger, Galaxian, Joust

Enjoy!

ATARI 800

## COMMODORE VIC-20



Released by Commodore Business Machines in 1980, the VIC-20 became the first computer to sell over 1 million units.

By 1980, the home computer market was shifting toward low-cost, user-friendly systems. As such, the VIC-20 was marketed as "The Friendly Computer." It was designed to be more approachable to novice computer users, rather than professionals or skilled hobbyists. It shared an architecture with Commodore's PET but with a reduced cost, and it included consumer focused features, such as ROM cartridges for software, and a joystick interface compatible with Atari 2600 controllers.

## TIPS

Programs for the Vic-20 can be stored in several formats, including floppy disks and cassette tapes. All of the games we have are on ROM cartridges.

1. **The Computer should be OFF when inserting or removing a Cartridge.**
2. Hold the cartridge with the label facing up, and CAREFULLY insert it in the slot at the back left corner of the Computer.
3. Turn the Power Switch, on the right side of the Computer, to the ON position.
4. Follow onscreen instructions to load and play the game.
5. Before removing a Cartridge, always make sure that the Power switch on the Computer is in the OFF position.
6. Most games can be played with either the Joystick or Keyboard. Directional controls on the keyboard vary. Common combinations for Left, Right, Up, and Down are [L] [;] [P] [.] or [A] [S] [W] [Z]

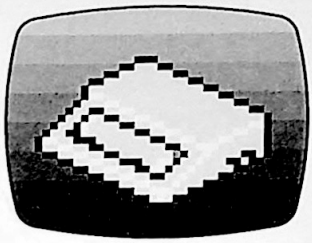
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Avenger, Omega Race, Pole Position

Enjoy!

VIC-20

## TRS-80 COLOR COMPUTER 2



In 1980, Tandy-RadioShack launched the Color Computer line. While it retained the TRS-80 name, the CoCo was a substantial departure from Tandy's earlier computers. Notably, the Zilog-Z80 processor (for which the TRS-80 was named) was replaced with the Motorola 6809 processor.

Changes from the earlier TRS-80s were aimed at competing with new, low-cost home computers such as the VIC-20. As the name indicates, the Color Computer added color graphics. It was designed to connect to a TV rather than a dedicated monitor.

Compared to its competitors, the CoCo had a very advanced CPU. However, to offset the CPU cost, dedicated sound- and graphics-hardware we're omitted. This made it difficult for the CoCo to compete in the gaming market.

## TIPS

Programs for the CoCo can be stored in several formats, including floppy disks and cassette tapes. All of the games we have are on ROM cartridges, called Program Paks.

1. **The Computer should be OFF when inserting or removing a Program Pak.**
2. Hold the Program Pak with the label facing up, and CAREFULLY insert it into the slot on the right side of the Computer.
3. Turn the Power Switch, on the right side of the Computer, to the ON position.
4. Follow onscreen instructions to load and play the game.
5. When you remove a Power Pak, always make sure that the Power switch on the Computer is in the OFF position.

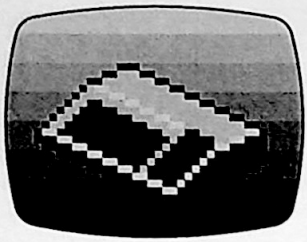
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Bustout, Demon Attack, Quasar Commander, Space Assault.

Enjoy!

TRS-80

## TEXAS INSTRUMENT TI-99/4A



By the 1980s, Texas Instruments already had a long history in the electronics industry and were supplying microchips to many other electronics manufactures. They entered the home computer market themselves in 1979 with the TI-99/4 and its successor, the TI-99/4A, in 1981.

The TI-99/4 was the first home computer to utilize a 16-bit CPU. One of the stand-out features of the TI-99 was the speech synthesizer peripheral, which enabled the TI-99 to produce realistic human voices. At the time, TI was a leader in speech synthesis, thanks to technologies they developed for the Speak & Spell toys in the 1970s.

The TI-99 ultimately lost the home computer price war. After launching at a price of $525 in 1981, the TI-99 was selling for under $100 by mid 1983. TI was taking a loss on every unit sold, and they left the home computer market in October 1983.

## TIPS

Programs for the TI-99/4A can be stored in several formats, including floppy disks and cassette tapes. All of the games we have are on ROM cartridges, referred to as Command Modules™.

1. Turn the Power Switch, at the front right corner, to the ON position.
2. Hold the Command Module™ with the flat side down, and place it in the depression to the right of the keyboard.
3. CAREFULLY, push the Command Module™ forward until it is fully seated in the slot.
4. Follow on-screen instructions to load the game.
5. Before removing a Command Module™, quit to the Title Screen or power off the Computer. Follow in-game instructions to quit or press [Fn] + [=].
6. If controllers are not responding properly: Check the [ALPHA LOCK] key. The keyboard and joysticks share some circuitry, and some joystick functions don't work when the [ALPHA LOCK] is ON.

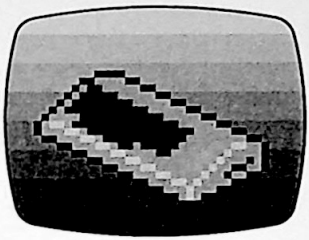
**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Burger Time, Parsec, TI Invaders, Buck Rodgers.

Enjoy!

TEXAS INSTRUMENTS

## COMMODORE 64



Released in 1982, the Commodore 64 was a substantial upgrade to its predecessor, the VIC-20. With 64 kilobytes of RAM and custom video and audio hardware, the C64 had superior capabilities compared to its rivals, which included the Apple II and the Atari 800. With distribution in several department stores, toy stores, and campus bookstores, it soon came to dominate the low-cost home computer market.

The C64 remained on the market for over 11 years and sold at leas 12.5 million units. This remained the world record for sales of a single model of computer until 2017, when it was outsold but the Raspberry Pi.

## TIPS

Programs for the Commodore 64 can be stored in several formats, including floppy disks and cassette tapes. All of the games we have are on ROM cartridges.

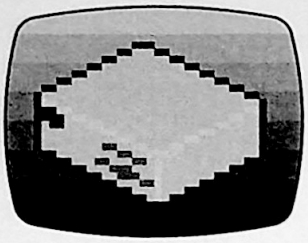
1. The Computer should be OFF when inserting or removing a Cartridge.
2. Hold the cartridge with the label facing up.
3. Insert the Cartridge CAREFULLY into the slot at the back right corner of the Computer.
4. Turn the Power Switch, on the right side of the Computer, to the ON position.
5. Before removing a Cartridge, always make sure that the Power switch on the Computer is in the OFF position.

**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Attack of the Mutant Camels, Buck Rogers, Popeye

Enjoy!

## IBM PERSONAL SYSTEM/1



The IBM PC had long dominated in the business sector, but their first attempt at entering the home computer market with the PCjr in 1984 was a failure. In 1990, they returned with the PS/1. The name is derived from IBM's more advanced, business-oriented Personal System/2, however the architecture is more similar to the older IBM PC/AT. The PS/1 launched with an Intel 286 CPU and PC DOS 4.01, IBM's branded version of MS-DOS. Tonight, we have a later model PS/1 Advisor, featuring a 25MHz 486SX CPU and 16Mb RAM running Windows 3.11.

This era was the golden age for the Apogee model of shareware distribution, with titles ranging from side-scrollers such as Commander Keen and Duke Nukem to early first-person-shooters including Wolfenstein 3D and Doom.

## TIPS

All of the games for this Computer are pre-installed on the hard drive - no need for floppy disks or cartridges. This Computer is running both Windows 3.1 and MS-DOS. We recommend working in Windows, as it will be most familiar to new users.

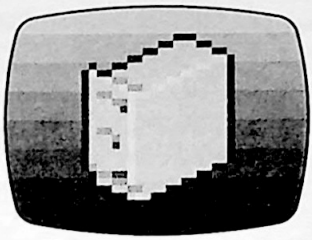
1. Make sure the computer is powered ON.
2. If you only see a black screen with white text, this means Windows is not yet running. To start Windows, type START and press [Enter]
3. Browse the icons for available games. Double Click the game you wish to play.
4. Most games can be controlled with the keyboard. Some also work with the Mouse, Joystick, or Game Pad. It is safe to "hot-swap" the Joystick and Game Pad controller while the Computer is running, but it is best to quit the game before making changes.
5. Some games have Copy Protection systems that require physical items such as books, manuals or code wheels. These items can be found on the desk, next to the computer.

**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** Commander Keen, Jazz Jackrabbit, Wolfenstein 3D, Duke Nukem, Oregon Trail, Scorched Earth, Where in the World is Carmen San Diego.

Enjoy!

## IBM APTIVA



The Aptiva was introduced in 1994 as a successor to the PS/1; it served as IBM's primary home computer product line until 2001. The earliest models included Intel 486 processors and Windows 3.1. Later models shipped with Windows 95 or 98 and processors up through the Pentium III. The Aptiva we have tonight features a 550MHz Pentium III with 256Mb of RAM, running Windows 98.

This era saw the rise of 3D PC gaming with series such as Quake and Tomb Raider as well as networked multiplayer games including WarCraft and the EverQuest series.

## TIPS

All of the games for this Computer are pre-installed on the hard drive, but some require that the disc is inserted in the CD-ROM Drive. This Computer is running Windows 98, it should feel fairly familiar to modern Windows users.

1. Click the Start button in the lower left corner of the screen.
2. Navigate to the Games folder to browse available games.
3. Click the Game you wish to play, and follow on-screen instructions.
4. If a disc is required, this can be found in the Binder on the desk.
5. Games may be controlled with the Keyboard, Mouse, Joystick, Gamepad, or a combination of these. It is safe to "hot-swap" the Joystick and Gamepad controllers while the Computer is running, but it is best to quit the game before making changes.

**IF YOU ARE EXPERIENCING DIFFICULTIES, PLEASE LOCATE A STAFF MEMBER WITH A ≤64b STAFF BADGE.**

**Game suggestions for new players:** SimCity 2000, Doom, Tomb Raider

Enjoy!

Aptiva

## THE BIG SCREEN

As console gaming hardware advanced, simultaneous multiplayer gaming become more feasible. The 64-bit generation was arguably the golden age of local multiplayer gaming.

This weekend, we have two big screen projectors set up with multiplayer games. Join in with a few friends or strangers to play these classics, or just sit back and watch the action.

## SATURN BOMBERMAN

**11AM to 7PM**

Bomberman is a long running series which originated in 1983 with a release for a variety of home computers, including the MSX series, in Japan.

The twelfth iteration in the series was released for Sega Saturn in 1996. Saturn Bomberman is best known for its multiplayer battle mode which supports up to 10 players. We will have this 10-player mode running on one of our big screen projectors this weekend.

## DANCE DANCE REVOLUTION

**7PM to 9PM**

Dance Dance Revolution was a pioneer in the rhythm and dance game genre. Originally released as an arcade machine in 1998, the game has received many revisions.

Home versions soon followed, with a PlayStation version released in Japan in 1999 and in 2001 for North America.

We'll have the PlayStation version available on one of the Big Screens this weekend.

# THE BIG SCREEN

## NINTENDO 64

One advantage that the Nintendo 64 had over its competitors in the 64-bit era was that it had four controller ports. Nintendo took advantage of this with several very successful multiplayer games. One of our projectors features a selection of the most popular 4 player games for the Nintendo 64.

## MARIO KART 64

**11AM to 5PM**

Released in December 1996, Mario Kart 64 was a big step forward from its predecessor, Super Mario Kart on the SNES, adding true 3D graphics. This was the first game for the N64 to feature a simultaneous four-play mode. Many still consider this the best game in the Mario Kart series. Part racing game. Part battle game. Just watch out for those blue shells.

## GOLDENEYE 007

**5PM to 7PM**

Released in 1997, GoldenEye 007 popularized the multiplayer first person shooter on the N64. It is credited with proving that the genre, which had previously been mostly limited to PCs, could work on a console. The game was an unexpected commercial success, becoming the third best selling N64 title, and is often cited as one of the greatest video games of all time.

## SUPER SMASH BROS.

**7PM to 9PM**

The Smash Bros. series started with the release of Super Smash Bros. for the N64 in 1999. Luigi vs. Pikachu; Kirby vs. Link; Super Smash Bros. featured 12 characters from a range of franchises. Each combination of players creates a different game dynamic. This variety, the nostalgic aspect, and a unique fighting mechanic combined to make the game a commercial success with a wide range of players. , The series has gotten a release for each Nintendo console since.

## HIGH SCORES

Check out our NES High Score Contest for a chance to win some great prizes. We've selected three of our favorite Nintendo titles for the contest. Each game is set up on a different version of the NES: the Toaster, the Top Loader, and the original Famicom.

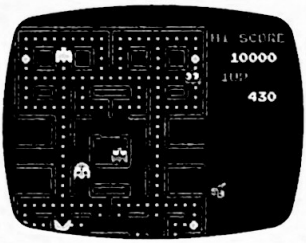
To participate in the contest, just sit down and play a few rounds. Record your top score on the leader board along with your name and contact info. We will contact the winner to deliver your prize after the festival.

## PRIZES

Thanks to our sponsor, **Portland Retro Gaming Expo**, we can offer prizes for the top score in each of these games. At the end of the night, the winner of each game will win a weekend pass to this year's Portland Retro Gaming Expo!

PRGE is one of the largest retro gaming events in the country. Their goals are to **Educate** about the impact of video games, **Preserve** the history of gaming, and **Inspire** future game creators. This year, PRGE will be held October 13-15 at the Oregon Convention Center.

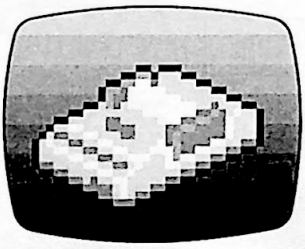
## PAC-MAN




Pac-Man is a classic arcade title, originally released by Namco in 1980, under the name Puck-Man. Namco was looking for a game that would appeal to women, so they developed a game about eating. It was one of the first games to use a full-color RGB monitor, and it featured friendly graphics and non-violent gameplay.

The game was a quick success and would be ported to a wide range of consoles and home computers. The Famicom version was released in 1984.

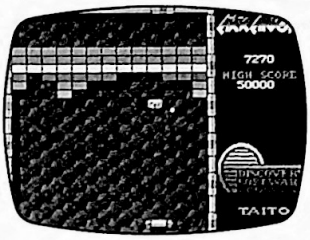
## NINTENDO FAMILY COMPUTER



2 years before it came to North America as the NES, Nintendo released the Famicom in Japan in July 1983. Arguably the first true 8-bit system, the Famicom was the beginning of the console wars.

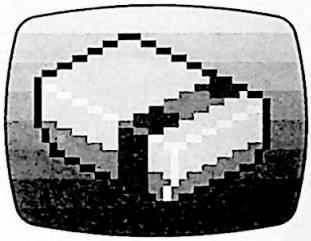
The Famicom popularized many of the features that would define this era of gaming including the D-Pad controller, which Nintendo had introduced with the portable Game & Watch version of Donkey Kong. While the NES was only a gaming console in North America, peripheral devices, including keyboards and disk drives, were sold in Japan to turn the Famicom into a full fledged home computer.

## ARKANOID



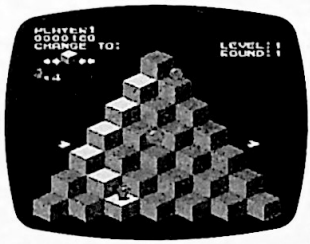

Arkanoid is an arcade game released by Taito in 1986. It expanded upon Atari's Breakout games of the 1970s by adding power-ups, different types of bricks, a variety of level layouts, and visual layering and depth. It was widely ported to contemporary systems and revived the Breakout concept, resulting in many clones and similar games for home computers, even decades later. The NES port was packaged with a custom paddle controller.

## NES TOASTER



For its US release, Nintendo wanted to differentiate the NES from previous game consoles, which had developed a poor reputation following the video game crash of 1983. The new design featured glossy plastic more reminiscent of modern A/V equipment, rather than the beige and wood-grain of previous consoles. The front-loading mechanism was designed to resemble contemporary VCRs. This system included a zero-insertion-force slot, which would theoretically reduce wear on the cartridge contacts. Unfortunately, this mechanism proved unreliable.

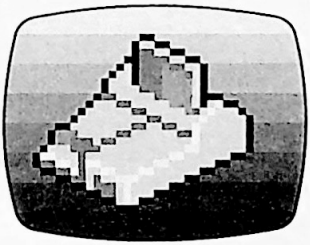
## Q*BERT




Released in 1982, Q*Bert was an action-puzzle arcade game developed by Gottlieb. At the time, Gottlieb was predominantly a pinball manufacturer. Q*Bert was one of their first video game titles, and certainly their most successful.

The game was very well received for its innovative gameplay and vibrant graphics. It received a number of ports, including an NES version in 1989.

## NES TOP LOADER

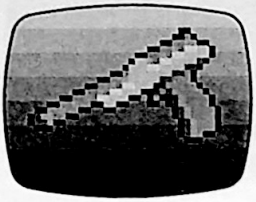


After years of responding to service requests due to the failing "toaster" mechanism, Nintendo redesigned the NES in 1993. The new design borrowed from the new Super NES. The result was the Model 101, commonly known as the "Top Loader".

This was a cost-reduced version of the NES. The top loader had a smaller form factor, omitted the composite video output port, and eliminated the "lockout" chip. This model also shipped with a redesigned controller, known as the "Dog Bone", with rounded ends resembling the SNES controllers.

# SHOOTING GALLERY

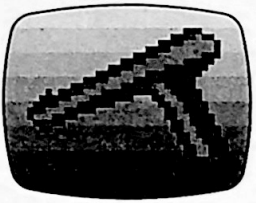
## NES ZAPPER



While it wasn't the first, the NES Zapper is perhaps the most iconic light gun. The Zapper was first released in 1984 as the Beam Gun for the Famicom along with the game Wild Gunman, which you may know from Back to the Future II ("You have to use your hands? That's like a baby's toy.")

In 1985 the Zapper was released in North America, alongside the launch of the NES. The Zapper was included in the NES Action Set and came bundled with Duck Hunt.

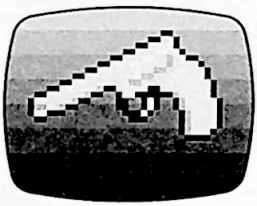
## LIGHT PHASER



When the Sega Master System was launched in North America in 1986, it was bundled with a Light Phaser and multi-cart containing Safari Hunt. Over the next few years, around a dozen more games were released supporting the Light Phaser.

The Light Phaser's black plastic shell was designed to resemble a futuristic laser pistol. The same design was featured as a weapon in the Sega-backed anime series, Zillion. The all black design was realistic enough that there were concerns that police might mistake it for a real gun; later versions were altered with hand-painted orange tips to identify them as a toy.

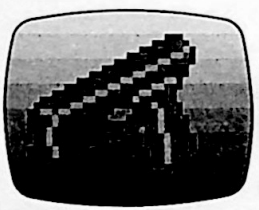
## KONAMI JUSTIFIER



The Justifier was produced by Konami for the Sega Genesis, Super NES, and PlayStation. Originally released to support Konami's game Lethal Enforcers, the Genesis and Super NES versions were modeled after the revolvers from the arcade version of that game. The pink version (only available by mail-order from Konami) could be daisy-chained into the blue version for two-player mode.

This weekend, we have both the blue and pink models available on the Genesis, as well as the green model for the PlayStation.

## NUBY SNIPER



NubyTech is a third-party accessory developer creating unique controllers for a variety of game systems. In the late 90's they released a variety of light guns for the PlayStation and other systems. The Sniper featured recoil vibration, auto-fire, auto-reload. A two-mode switch allows the Sniper to be compatible with games designed for either of the two official PlayStation guns, the Justifier or the GunCon.

# THANK YOU FOR COMING!

64 Bits or Less is brought to you by a collective of old friends with a passion for art, games, and nostalgia. The origin of this event goes back more than a decade to our first Animation Fest, an outdoor, all night party celebrating the wonders of animation. It was so much fun and so well received that we kept it up. A few years later, we expanded to add our video game festival, 64 Bits or Less.

We sincerely hope you had a blast tonight, and thank you for coming!

64 Bits or Less Founders:

- Erik Jensen
- Chris Legg
- Courtney Spaulding
- Philip Hochheiser
- Stefan Francavilla

## THANKS TO OUR SPONSORS!

**64 Bits or Less is sponsored by the Portland Retro Gaming Expo.**

Check out our High Score Contest for a chance to win weekend passes to this year's Expo!

The Portland Retro Gaming Expo is an annual event that celebrates the historic contribution that video games have made in popular culture.

PRGE 2023 will take place October 13-15 at the Oregon Convention Center. Tickets are now on sale at retrogamingexpo.com.

We hope to see you there!